

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: CARTELLA, Pierro

SERIAL NO.: 10/658,784

ART UNIT: 3612

FILED: September 9, 2003

EXAMINER: Coleta, L.L.

TITLE: STRUCTURE FOR THE FRONT OF A VEHICLE, OF THE TYPE WITH CONTROL OF THE DEFORMATION FOR THE SAFEGUARD OF THE PEDESTRIAN

AMENDMENT "A"

Director of the U.S. Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action of May 26, 2004, having a response being due with a Petition to Revive by December 26, 2004, please consider the following remarks:

REMARKS

Upon entry of the present amendments, previous Claims 1 - 9 have been canceled and new Claims 10 - 18 have substituted therefor. Reconsideration of the rejections, in light of the forgoing amendments and present remarks, is respectfully requested. The present amendments have been entered for the purpose of placing the claim language into a more proper U.S. format and also for the purpose of more clearly distinguishing the present invention from the prior art patents.

In the Office Action, it was indicated that Claims 1, 2, 8 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Palenchar publication in view of the Lucchini patent. The

claims were also object because of various informalities. The disclosure was objected to because of various wording errors. Additionally, the drawings were objected to under 37 C.F.R. 1.83(a). The Claims 4 - 7 were "objected to" as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

As an overview to the present reply, Applicant has extensively revised the language of the claims so as to place the claims into a more proper U.S. format. These new claims have proper antecedent bases and proper structural interrelationships throughout. Any indefinite terminology found in the original claim language has been corrected herein. So as to more clearly define the "structure" of the present invention, the "hood component", the "air bag", and the "nose component" have been positively recited. The various elements that make up the "pre-assembled frontal module" have also been positively recited. Applicant respectfully contends that the features of the present invention, as defined herein, are neither shown nor suggested by the prior art references.

In the present invention, the structure is used for the protection of pedestrians. In simple terms, when a pedestrian is encountered, the air bag will operate so as to lift the hood of the vehicle through the inflation of air bags. The mudguard coverings are suitably expandable so as to allow the hood component, along with its hood covering, to be suitably lifted outwardly from the front of the vehicle. The nose component of the structure of the present invention is suitably soft and compressible so as to further provide protection against impact to a pedestrian. Applicant respectfully contends that the prior art patents neither show nor suggest such a function.

The prior art Palenchar reference is a publication which shows a technique for lifting a frontally hinged hood. A pair of piston-and-cylinder assemblies are mounted toward the front of the

vehicle so as to move the hood from a retracted position covering the engine to an extended position which exposes the engine. The Palenchar patent lacks the “at least one air bag positioned below the hood component”, the “nose component formed of a soft material”, the “hood covering”, the “bumper covering” and the pair of “mudguard coverings”.

The prior art Lucchini reference does disclose a safety device for the protection of pedestrians. This protection device is arranged in the zone of the front hood of the vehicle. The safety device has a mechanism for raising the rear of the front hood which is triggered by a sensor installed adjacent to the front bumper of the vehicle. Upon detection of a collision, the mechanism raises the front hood from a rest position to an impact position in which the potential for contact between the pedestrian’s head and the windshield is reduced. An air bag is positioned adjacent the rear of the hood so as to cause the hood to move upwardly.

In contrast to the present invention, the Lucchini patent actually uses a softer material for the hood for the cushioning of the impact. The Lucchini patent does not have a “hood covering”, a “bumper covering”, or a “pair of mudguard coverings”. Additionally, the Lucchini patent utilizes “front bumper bar 10” which includes sensor strips 8 for detecting a collision with a pedestrian. As such, the Lucchini patent does not have the “nose component formed of a soft material”.

On this basis, Applicant respectfully contends that the prior art combination does not show the structure of the present invention. Fundamentally, neither of the prior art patents show the respective coverings associated with the “pre-assembled frontal module”. The prior art patents do not show the “nose component formed of a soft material”. In operation, the Lucchini patent would have to be mechanically integrated with the structure of the vehicle. In contrast, the present invention utilizes a “pre-assembled” front module that can be retrofitted to existing vehicles. The

present invention provides soft coverings at both the nose component and the hood component to further cushion against any impact with a pedestrian. The expansion of the hood component of the present invention through the use of the air bag is controlled relative to the pretensioned belt that extends around a rearward portion of the hood component and the hood covering. The mudguard coverings have an expandable section whereby the hood component can be rapidly expanded outwardly without interference by connection to the mudguard covering. As such, the prior art combination fails to show the structure of the present invention, the function of the present invention and the results achieved by the present invention.

Applicant has revised previous dependent Claims 2 - 9 in the form of new dependent Claims 11 - 18, respectively. In all cases, the new claims have been prepared in a more proper U.S. format, including proper antecedent bases and proper structural interrelationships throughout.

Applicant has removed the term "sensor means" from the claim language in view of the Examiner's objection with respect to the drawings. Applicant has revised the drawings in accordance with the Examiner's suggestion so as to more clearly illustrate the reference numerals "200", "202" and "210".

The various errors in the original specification have been corrected herein in accordance with the Examiner's recommendation.

Based upon the foregoing analysis, Applicant contends that independent Claim 10 is now in proper condition for allowance. Additionally, those claims which are dependent upon Claim 10 should also be in condition for allowance. Reconsideration of the rejections and allowance of the

claims at an early date is earnestly solicited. Since no new claims have been added above those originally paid for, no additional fee is required.

Respectfully submitted,

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Date 12-10-04

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Amendment A: DRAWINGS AMENDMENTS

Please revise FIG. 1 by deleting reference numerals "10", "02" and "00" and substituting --210--, --202-- and --200-- respectively therefor, as indicated in red ink on the attached drawing sheet.